Pre-*Australopithecus* Garusi 1

Puech P.-F. (1986) Pre-*Australopithecus* Garusi 1, Abstracts of papers to be presented at the fifty-fifth annual meeting of the American Association of Physical Anthropologists Albuquerque, New Mexico April 9–12, 1986, American Journal of Physical Anthropology, 69 (2): 252-253.

The palate of Garusi Hominid 1 (3,9 Ma.), broken at the *sutura palatina mediana* up to the *foramen incisivum*, bears the two premolars, the alveoli of the canine and incisors, and the inferior portion of the nasal aperture (Kohl-Larsen, 1943). The anterior dental arcade was reconstructed with the aid of reversed photographs and a silicone cast of the canine and incisor sockets. Compared with *Australopithecus* from Hadar, Garusi H.1 has a low palate breadth and low I1/I2 proportions, and Hadar has an advanced position of the anterior teeth independent of the lateral nasal margins.

Kohl-Larsen L (1943) Auf den Spuren des Vormenschen: forschungen, Fahrten und Erlebnisse in Deutsch-Ostafrika (Deutshe Afrika-expedition 1934–1936 und 1937–1939. Stuttgart: Strecker und Schröder.

The Garusi 1 hominin led Johanson, White and Coppens (1978) to link Laetoli and Hadar hominins. The maxillary Garusi was also included in the species *Australopithecus anamensis* (Leakey et al. 1995). *A. anamensis*, arboreal and also good biped, can be placed on the human lineage, a broad vision for which Brigitte Senut (1996) suggests to call the specie *Praeanthropus*. The relatively large canine root size contributes to the inflated canine jugal area and rounded lateral nasal aperture seen in *A. anamensis* and Garusi 1. The large canine set this tooth more directly anterior to the postcanine tooth row leading to rows of teeth nearly parallel and narrow jaw as in *Homo habilis*, a primitive condition present in O.H.7. Therefore, Garusi 1 is nearly identical to O.H.7 in the absolute size and occlusal relations.

Garusi Hominid 1 and Olduwai Hominid 7 mandible © Pierre-François PUECH

-Leakey, M.G., Feibel, C.S., McDougall, I., Walker, A., 1995. New four million-year-old hominid species from Kanapoi and Allia Bay, Kenya.Nature 376: 565-571.

-Senut, B., 1996. Pliocene hominid systematics and phylogeny. S. Afr. J. Sci.92 : 165-167.

American Journal of PHYSICAL ANTHROPOLOGY

FOUNDED BY ALEŠ HRDLIČKA, 1918

The Official Publication of the
American Association of Physical Anthropologists

Annual Meeting Issue

February 1986
Volume 69 Number 2

THE WISTAR INSTITUTE OF ANATOMY AND BIOLOGY · A.D. 1808 ·

A Wistar Institute Press Journal
Published by Alan R. Liss, Inc.

pp : 252 -253

Pre-Australopithecus Garusi I

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The extreme variation in morphology and size in A.afarensis (Hadar, Laetoli and Garusi hominids) have open the question of how many species are present.
Recent cleaning of the matrix and reconstruction of the dental arcade of the upper right maxilla from Garusi gives the opportunity to analyse subnasal/maxillary morphology of one hominid from the Laetolil Beds -the older assemblages of the species.

The distinctive characters unrelated to sexual dimorphism of Garusi hominid compared to Hadar hominids are:

- relatively low premaxillary prognathism Index (with palate breath at P^3): Hadar AL 200-I=81.3, Garusi I=63.0, A.africanus MLD 9=50.0
- small central incisor relative to the lateral: I^1/I^2 Garusi I=1.20, Hadar AL 200-I=1.49, A.africanus STS 69/70=1.50
- lateral incisor root placed directly beneath the nasal aperture
- no canine fossa
- vertically oriented canine root
- canine jugum participates to thick rounded lateral margin of nasal aperture
- primitive canine crown shape: M-D = B-L

In a population that show fairly large amount of interspecific variation , the Pre- Australopitheous features of Garusi hominid indicate a possible derived position of the exagerate prognathism of Hadar AL 200-I. This exaggeration can be opposed to the other derived position in a high position of the anterior masseter origin in A.africanus-A.robustus-A.boisei. In the two cases we observe a departure from the primitive condition suggested in Garusi hominid.

Supported in part by Institut Für Urgeschichte dept. Pr H.J. Muller-Beck, Tübingen (Germany) and lab. Geology du Quaternaire, dept. Pr M. Taieb, Marseille (France).